

## PATENT COOPERATION TREATY

## PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P 24532 PC	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No ECT/NO2004/000004	International filing date (day/month/year) 12-01-2004	Priority date (day/month/year)
International Patent Classification (IPC) or national classification and IPC See Supplemental Box		
Applicant Maritime Communications Partner AS et al		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>15</u> sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70 16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>	
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>	

Date of submission of the demand  20-10-2005	Date of completion of this report  06-03-2006
Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5955 S-102 42 STOCKHOLM Facsimile No. +46 8 667 72 88	Authorized officer  Peter Hedman / itw Telephone No. +46 8 782 25 00

Form PCT/IPEA/409 (cover sheet) (April 2005)

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International application No

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.  
Continuation of: Cover sheet

**International patent classification (IPC)**

H04Q7/20(2006.01)

H04Q7/36(2006.01)

H04Q 7/38(2006.01)

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/NO2004/000004

## Box No. 1 Basis of the report

1. With regard to the language, this report is based on:

- ☒ the international application in the language in which it was filed  
☐ a translation of the international application into \_\_\_\_\_  
which is the language of a translation furnished for the purposes of:
- ☐ international search (Rules 12.3(a) and 23.1(b))  
☐ publication of the international application (Rule 12.4(a))  
☐ international preliminary examination (Rules 55.2(a) and/or 55.3(a))

2. With regard to the elements of the international application, this report is based on
- (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*

- ☐
- the international application as originally filed/furnished

- ☒
- the description:

pages \_\_\_\_\_ as originally filed/furnished  
pages\* 1-9 \_\_\_\_\_ received by this Authority on 20.10.2005  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

- ☒
- the claims:

pages \_\_\_\_\_ as originally filed/furnished  
pages\* \_\_\_\_\_ as amended (together with any statement) under Article 19  
pages\* 10 \_\_\_\_\_ received by this Authority on 20.10.2005  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

- ☒
- the drawings:

pages \_\_\_\_\_ as originally filed/furnished  
pages\* 1-5 \_\_\_\_\_ received by this Authority on 20.10.2005  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

- ☐
- a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

- 3.
- ☐
- The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_  
☐ the claims, Nos \_\_\_\_\_  
☐ the drawings, sheets/figs \_\_\_\_\_  
☐ the sequence listing (specify): \_\_\_\_\_  
☐ any table(s) related to the sequence listing (specify): \_\_\_\_\_

- 4.
- ☐
- This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages \_\_\_\_\_  
☐ the claims, Nos \_\_\_\_\_  
☐ the drawings, sheets/figs \_\_\_\_\_  
☐ the sequence listing (specify): \_\_\_\_\_  
☐ any table(s) related to the sequence listing (specify): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded"

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1 Statement**

Novelty (N)	Claims	<u>1,2</u>	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	<u>1,2</u>	NO
Industrial applicability (IA)	Claims	<u>1-2</u>	YES
	Claims		NO

**2 Citations and explanations (Rule 70.7)**

The claimed invention relates to the problem of allowing a moving cellular radio network to operate in the vicinity of one or more other networks without interfering with transmissions associated with the other network/s.

Reference is made to the following documents:

D1: US 2002/0072328 A1

D2: US 2002/0082044 A1

The document D1 is regarded as being the closest prior art to the subject-matter of claim 1, and discloses a method of managing a first mobile radio network, provided with a mobile infrastructure, located for example on a ship. The method initiates a procedure for determining and sharing frequencies wherein interference with a second fixed infrastructure mobile radio network which is using resources that are also being used on board the ship is avoided. Before calls are being set up with a wireless unit the transceiver of the first mobile network scans the various available frequencies in order to detect the presence of another radio network in the vicinity. Frequencies already in use by the other network are prohibited for the first network. A dialog with the purpose of agreeing on a frequency for setting up a connection between the two networks and for prohibiting the use of other frequencies is being executed, after which a connection is set up. (See [0032]; [0039]-[0045], claims 1-4).

D1 fails to suggest a frequency allocation procedure in which frequencies to be allowed or prohibited are retrieved from a storage. D1 also fails to suggest that stored frequencies are evaluated in dependence on the present location of the first mobile radio network (the ship).

The problem to be solved therefore is to derive an alternative

## Supplemental Box

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Continuation of: BOX V(I)

As for mobile radio networks in general, it is common practice to execute positioning of a mobile unit, for example with the help of GPS, to be used for various reasons. With this in mind also positioning of a mobile radio network located on a ship would be achieved by a person skilled in the art simply by utilisation of conventional technique and without the skilled person having to contribute with any inventive skill.

From D2 a system for communicating over a plurality of wireless networks is known. A reconfiguration procedure of a software defined radio is executed from a radio controller located on a remote mobile asset (12). The remote asset also comprise a first database (16), containing information about wireless networks (27), such as coverage area, service activation/authorization and valid licenses. From the stored information and positioning, a frequency/network which meet with certain requirements may be chosen. A frequency scanning device located on the remote asset is determining the presence or absence of pre-selected media broadcast frequencies, which are also being stored in a second database (18). The second database contains information related to license, frequency allocation and geographic location and is, together with the scanning information used as one possible option for location determination (See [0002];[0007]; [0013]-[0016]).

Consequently, a method for determining available frequencies by way of checking data in a database and by way of comparing the data to the present position of the remote asset is already known from D2. Since both documents refer to the same technical field and since no unexpected technical effect is achieved from this combination it is considered obvious to the person skilled in the art to combine these two documents and, thus, to come up with a solution which is equivalent to the one suggested in the amended claim 1. Therefore, this claim is novel and industrially applicable, but fails to involve an inventive step.

Claim 2 describes different rules for decisions to be made upon having evaluated frequencies stored in the database.

The system described in D2 also have the radio sensing equipment (radio scanning) which is necessary for detecting changes that has occurred in the radio environment. In addition, since the decisions which are proposed in claim 2 only results in prohibiting or allowing the use of certain frequencies under expected conditions it is considered obvious

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## Supplemental Box

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that the method which is suggested in claim 2 also would be achievable by a person skilled in the art by way of combining D1 with D2, and by way of using common knowledge in this particular technical field. Therefore, also this claim is novel and industrially applicable, but fails to involve an inventive step.